



# Urban Forestry Services, Inc.

Arboricultural Consulting | Wholesale Tree Nursery

Title: Kemp Hiatt Property Tree Assessment  
8800 Paisley Place NE,  
8415 Inverness Drive NE,  
Seattle, Washington

Prepared for: CG Engineering  
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Date: January 15, 2018

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## Summary

A total of 84 trees were assessed along the Kemp Hiatt properties at 8800 Paisley Place NE, and 6830 Inverness Drive NE in Seattle, WA. Almost all trees on the property are located within designated critical areas. 16 trees on adjacent property and 11 trees along the undeveloped ROW should be protected. These trees and their root protection zones should be shown on all plans. Eight (8) trees were identified as exceptional and should be considered for retention through development if they are not within falling distance of the new building. Eight (8) healthy significant trees on the site should be retained if possible. Tree retention zones are shown on the attached map for planning purposes.

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## Introduction

An Urban Forestry Services, Inc. consulting arborist was onsite November 7th and 15th, 2018 to assess the trees at the Kemp Hiatt properties in Seattle, Washington. The purpose of this work was to assess trees for condition and retention value, and to determine which trees are worthy and possible to retain given the site plans provided.

The property consists of two lots adding up to a little over a half acre in size: Parcel 3426049287 (8,608 sq. ft.), and Parcel 3426049232 (15,579 sq. ft.). The property is a steep north west facing slope measuring over 45 degrees in places (1-1 slope). A flat right of way (ROW) along Inverness Drive NE runs along southeast portion of the lots along the top of the hill, and a flat wetland (ROW) is located at the end of Paisley PL NE along the lower western side of the slope. Most of the property is designated as a critical area either as a steep slope, erosion hazard, a riparian zone or wetland. Vegetation consists of deciduous tree canopy cover nearing 100% of the property. Understory on the slope consists of English ivy, *Hedera helix*, or bare ground with scattered clumps of Himalayan blackberry, *Rubus armeniacus* and sword fern, *Polystichum munitum*.

## Findings and Recommendations:

Using the site plan provided, a Level 2 Basic Tree Risk Assessment was conducted for 56 trees surveyed on the two properties, and 11 trees within the Right of Way (ROW). A Level 1 Limited Visual Assessment was conducted for 16 surveyed trees located on adjacent property with canopies overhanging the property line.

Trees are numbered with tags in the field beginning with #101. Each tag references the tree number on the attached Tree Site Plan and Tree Assessment Matrix. The Tree Assessment Matrix provides details on the species, trunk diameter, Critical Root Zone (CRZ) radius, tree condition, maintenance recommendations, risk of failure, and preservation value. Development plans were not provided for this assessment, therefore tree recommendations within the matrix are designed to assist with removal decisions after plans are developed. The following recommendations stated in the Tree Assessment Matrix do not correspond directly with the retention value as many trees have higher retention value in critical areas:

- “Remove tree, Risk of failure” trees should be managed immediately. These are hazard trees with a high risk of failing and hitting a target.
- “Monitor tree, Risk of failure” trees should not be retained on site if they are within striking distance of the new building footprint. These trees have a high probability of failing, but do not have a target within striking distance at the time of assessment.
- “Monitor tree through construction” trees are in good condition and may be retained if the critical root zones can be protected.

This report provides recommendations for tree retention based on health and structure in compliance with the Seattle Development tree code. Trees on this site have irregular and small

canopy drip lines. The drip line protection method suggested in the development code will not provide adequate protection for trees on this site and would be difficult to implement. For ease in planning, design all construction to be outside of the Interior Critical Root Zone (ICRZ) for trees to be retained. Final plans should provide full Perimeter Critical Root Zone protection (PCRZ). The attached Critical Root Zone Explanation clarifies these measurements. All construction work within the PCRZ should use minimum impact techniques to reduce soil and root damage.

The following is a summary of the recommendations in the Tree Assessment matrix:

**1. Eight (8) Exceptional trees, as described in the Seattle Directors Rule 16-2008, were identified on the property. Exceptional trees should be retained unless they are high risk to the new building.**

These large Big leaf maples, *Acer macrophyllum* (#'s 112, 120, 132, 135, 136, and 159); and Western red cedars, *Thuja plicata* (#126, and #160) are within steep slope critical areas and should be retained for slope stability. These trees have varying retention values. Though exceptional by size all these trees show signs of decay at the base, unusual rooting and lower trunk shapes, and overall poor vigor.

Most of these trees have a high risk of failure and will require extensive maintenance or removal to improve safety if they are located near the new building. Level 3 Tree Risk



**Photo 1-3. Many Exceptional multi-stem maples reside on the steep slope. Many of these trees are not in good condition. Preservation of these trees with unique structure is dependent on development plans. These trees will be a high risk to new buildings located within their falling zone if maintenance is not conducted. Level 3 Tree Risk assessments are recommended for any trees being retained.**



Assessments focusing on trunk strength and root distribution are recommended for any retained exceptional trees prior to building around them.

**2. Eight (8) significant trees on the properties are in good condition and should be retained if possible.**

Trees #108, 109, 118, 130, 131, 174, 182, and 183 are significant. These trees are located on the steep slopes or adjacent to neighboring properties and should be retained if possible. The ICRZ is provided for these trees on the maps as this corresponds with the dripline. Development should be designed outside the ICRZ for any trees being retained.

**3. Eleven (11) trees are in poor condition and are a high risk to adjacent properties.**

These trees are recommended for immediate removal or reduction to create a small habitat snag. Trees #104, 105, 107, 113, and 114 are located on the north west hill side, and trees #148-150, 154, and 155 are within the wetland along the south west property border. All trees are marked with a low or no retention value symbol on the map. These trees have poor health and structure and are large enough to impact neighboring houses if they fail.



**Photo 4.** This is the northwest corner of the property looking down hill toward neighboring trees and house. Trees below the laurel are on the adjacent private property.



**Photo 5.** These are alder trees within the riparian wetland. These tall skinny trees have a high probability of failing. Some may strike the neighboring property.

**4. Sixteen (16) trees on adjacent properties will require root zone protection.**

Data for these trees were estimated based on a detailed Level 1 Limited Visual Assessment. Trees are identified outside the property border on the maps. No construction work should be designed or planned within the ICRZ for these off-property trees. All trees should be protected regardless of their assessed condition unless coordination with adjacent property owners has occurred.

Trees #167, 171, and 172 along the south edge of the property are exceptional and should have full Critical Root Zone protection if possible.

Low retention value trees located along the west side of the property (#103, 106, 110, 163, and 169) are currently or are expected to become high-risk trees if nearby trees on the property are removed for construction. Retention, removal or maintenance to reduce the risk of failure for these trees will require permission and coordination with neighbors. Specific recommendations and assessment of risk for these trees for the proposed development and adjacent structures can be provided once development plans for the property are established.

**5. Eleven (11) trees on the unimproved ROW require Seattle Department of Transportation permission for management.**

Trees along Inverness Drive and at the end of Paisley Place within the ROW (#127, 128, 140, 173-177, 179-181) may require review by Seattle Department of Transportation prior to management. A Tree and Vegetation Study and Protection Plan (TVSPP) may be required for these trees. Urban Forestry Services INC can provide this upon request.

**Method of Assessment**

This Level 2 Basic Tree Risk Assessment was conducted according to the ISA Tree Risk Assessment Qualification (TRAQ) training and methodology (see the attached Tree Risk Assessment Level Descriptions).

While no one can predict with absolute certainty which trees will fail and which trees will remain healthy, by methodical process we can predict those most likely to fail by the conditions observed and take appropriate action to reduce or eliminate the potential hazard. The time frame for this Level 2 Basic Tree Risk Assessment considers expected conditions and issues over the next year. Because tree conditions change over time, further assessment may be necessary in the future.



### Tree Risk Assessment Level Descriptions

The tree risk assessment process is based on factors present at the time of assessment. Because trees are living, growing things that change in size and condition over time, the tree assessment process must also recognize and anticipate where and when future assessments should be performed. The Tree Risk Assessment Qualification (TRAQ) training and methodology, developed and administered by the International Society of Arboriculture is the best available methodology for tree risk assessment at this time. There are three levels of assessment that may be considered and employed according to the expectations of the owner or manager, conditions of the site and of the trees involved:

**Level 1 Limited Visual Assessment:** Includes a broad overview of an individual tree or group of trees near specified targets, conducted to identify obvious defects or other conditions of concern. A limited visual assessment typically focuses on identifying trees with imminent and/or probable likelihood of failure. Level 1 assessments do not always meet the criteria for a "risk assessment" if they do not include documented analysis and evaluation of individual trees. This level is typically used for large populations of trees as a means to quickly identify trees with imminent and/or probable likelihood of failure, at a specified schedule and/or immediately after storms.

Level 1 assessments may be done as walk-by, drive-by or aerial patrols as requested by the tree owner or manager. They may not provide enough information to develop risk mitigation recommendations. They can help identify specific areas and/or trees for further inspection at Level 2 or 3. Trees found to require a Level 2 Basic Assessment are assessed, mapped and documented at the higher level at this time. Trees determined to need a Level 3 Advanced Tree Assessment are documented and recommended for additional testing and analysis. The owner is notified with options discussed.

**Level 2 Basic Assessment:** This is a detailed visual inspection of a tree and its surrounding site, and a synthesis of the information collected. It requires that a tree risk assessor walk completely around the tree, looking at the site, buttress roots, trunk, and branches. This basic assessment may include the use of simple tools to gain additional information about the tree or defects. Our Level 2 Basic Assessment Trees are all typically tagged, mapped and information gathered and retained for each tree. Risk mitigation recommendations may be derived from this level of inspection. Defects found in a Level 2 Basic Tree Assessment may require a Level 3 assessment for further testing and analysis. The owner is notified with options discussed.

**Level 3 Advanced Assessment:** Advanced assessments are performed to provide more highly detailed information about specific tree components, defects, targets or site conditions. An advanced assessment is performed in conjunction with or after a Level 2 Basic Assessment if the assessor determines the need for (requires) additional information. This level is particularly useful where there are concerns about trees that may otherwise be of high value, or to obtain better information on how serious or extensive a particular defect is. The Level 3 Advanced Tree assessment may include but not be limited to a root crown inspection with air spade, Resistograph or Tomograph use to determine sound wood or an aerial crown inspection.

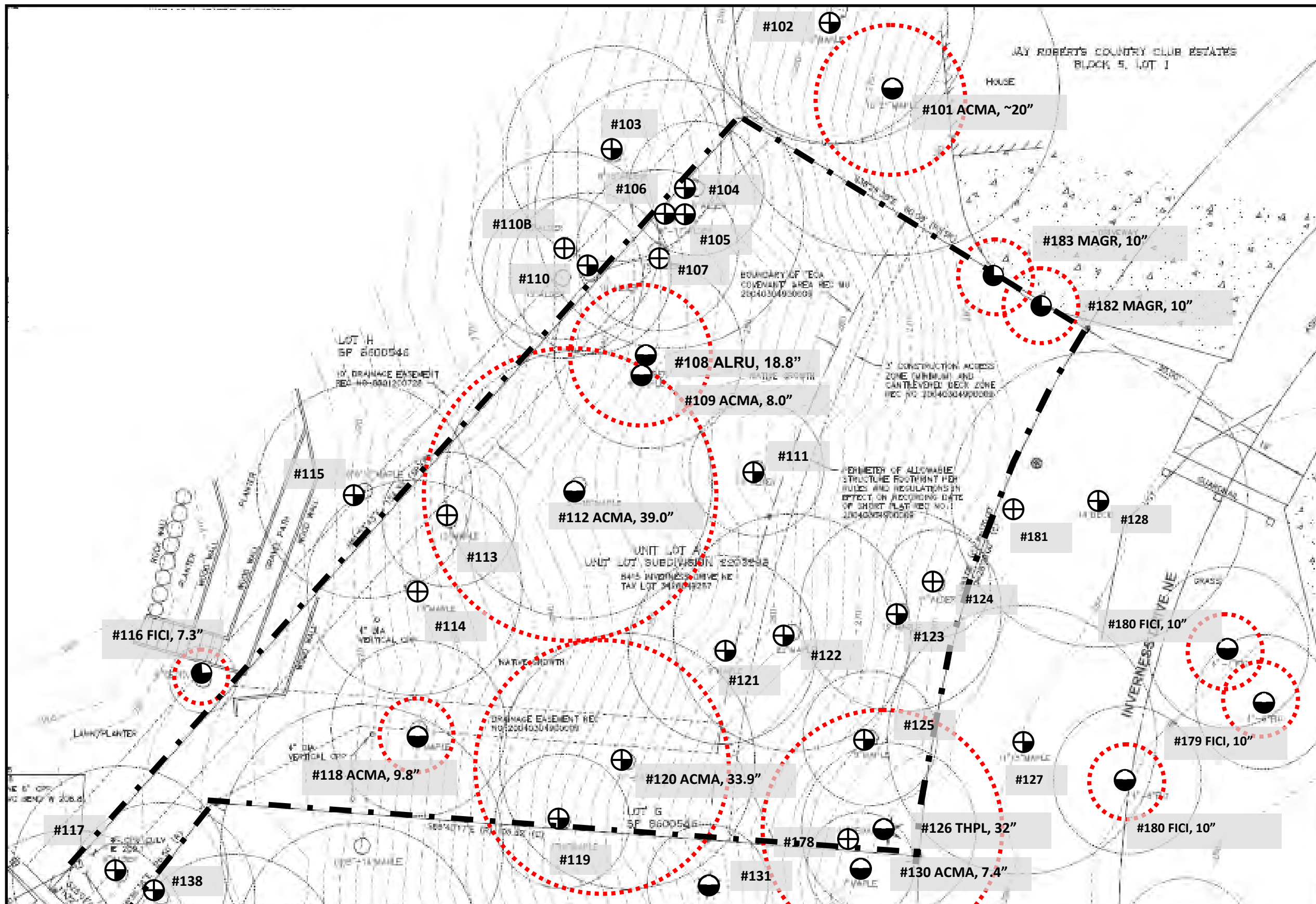
**The preliminary Level 1 Limited Visual Assessment if requested would help determine where field assessments at Level 2 and Level 3 will be needed.**

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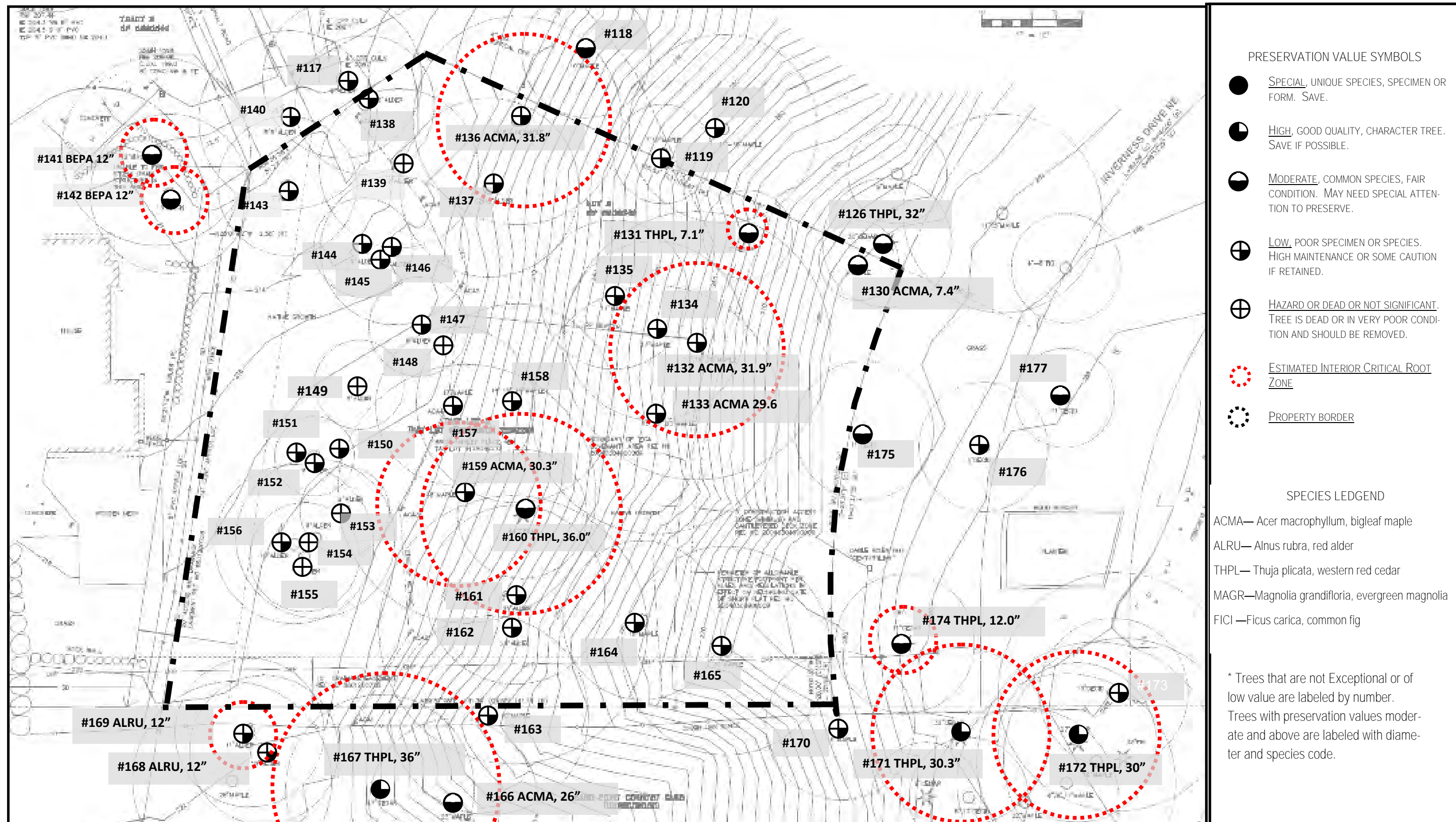




- PRESERVATION VALUE SYMBOLS**
- SPECIAL, UNIQUE SPECIES, SPECIMEN OR FORM. SAVE.
  - ◐ HIGH, GOOD QUALITY, CHARACTER TREE. SAVE IF POSSIBLE.
  - ◑ MODERATE, COMMON SPECIES, FAIR CONDITION. MAY NEED SPECIAL ATTENTION TO PRESERVE.
  - ⊕ LOW, POOR SPECIMEN OR SPECIES. HIGH MAINTENANCE OR SOME CAUTION IF RETAINED.
  - ⊕ HAZARD OR DEAD OR NOT SIGNIFICANT. TREE IS DEAD OR IN VERY POOR CONDITION AND SHOULD BE REMOVED.
  - ⋯ ESTIMATED INTERIOR CRITICAL ROOT ZONE
  - ⋯ PROPERTY BORDER

- SPECIES LEDGEND**
- ACMA—Acer macrophyllum, bigleaf maple
  - ALRU—Alnus rubra, red alder
  - THPL—Thuja plicata, western red cedar
  - MAGR—Magnolia grandiflora, evergreen magnolia
  - FICI—Ficus carica, common fig

\* Trees that are not Exceptional or of low value are labeled by number. Trees with preservation values moderate and above are labeled with diameter and species code.



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Kemp Hiatt Property 2 of 2  
8800 Paisley Place, Seattle, Washington

**Map 2 of 2**  
**January 10, 2018**





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## Kemp Hiatt Two Lot Seattle Site

### Tree Assessment Matrix

Inspector: Heckman  
ISA Certified Arborist  
ISA Tree Risk Assessment Qualified

Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
101	Bigleaf maple <i>Acer macrophyllum</i>	22, (22)	14.0	22.0	Poor to Fair	Poor to Fair	Medium	Medium	Adjacent Property Tree, Protect CRZ
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is off site to the north of the property and therefore not tagged and provided only a Level 1 inspection. Tree leans and overhangs the neighboring house and has a split trunk at the base with poor canopy growth.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
102	Bigleaf maple <i>Acer macrophyllum</i>	20, 6 (20.88)		20.9	Poor to Fair	Poor to Fair	Medium	Medium	Adjacent Property Tree, Protect CRZ
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is off site to the north of the property and therefore not tagged and provided only a Level 1 inspection. Tree is a multi-stem at base with indications of slope movement.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
103	Red alder <i>Alnus rubra</i>	, (0)			Fair	Poor	High	Low	Adjacent Property Tree, Protect CRZ Monitor Tree, Risk of Failure
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is off site to the north west of the property and therefore not tagged and provided only a Level 1 inspection. Tree leans down hill with a target of the neighboring house							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
104	Red alder <i>Alnus rubra</i>	6.4, (6.4)		6.4	Poor to Fair	Poor	Low	Low	Monitor During Construction
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree has a one sided canopy on the east side, uphill. Tree has a low probability of hitting any targets. Shape of trunk base indicates slope movement.							



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105	Red alder <i>Alnus rubra</i>	16.9, (16.9)		16.9	Poor to Fair	Poor	High	Low	Remove Tree, Risk of Failure Create Wildlife Tree Subordinate Prune
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Multiple stems in a grove. Two stems on the downhill side are snags six and eight inches diameter. Tree has significant uncorrected leans uphill. The target is the neighboring house.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
106	Red alder <i>Alnus rubra</i>	14.8, (14.8)		14.8	Poor	Poor to Fair	Medium	Low	Remove Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is on property line along the north west of the property Trunk is between two snags on the adjacent property. Retain until snags can be removed.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
107	Red alder <i>Alnus rubra</i>	16.4, (16.4)		16.4	Dying/Dead	Dying/Dead	High	None	Remove Tree, Risk of Failure
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree has a partially corrected downhill lean. Laurel reference tree is to the south. Recent slope failures surround the tree. The neighboring house is a target							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
108	Red alder <i>Alnus rubra</i>	18.8, (18.8)		18.8	Fair to Good	Fair	Medium	Medium	Monitor Tree, Risk of Failure
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Trunk has a corrected lean uphill away from the neighboring house.							



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Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
109	Bigleaf maple <i>Acer macrophyllum</i>	8, (8)		8.0	Fair	Fair	Low	Medium	Monitor During Construction
<b>Notes / Defects</b>									
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
110	Red alder <i>Alnus rubra</i>	15, (15)		15.0	Poor	Poor	High	Low	Adjacent Property Tree, Protect CRZ Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree is off site to the north west of the property and therefore not tagged and provided only a Level 1 inspection. This is the closest tree in the off site clump. All three trees have a lean and canopy distribution down hill to the neighboring house. One snag is in the middle. This group of trees is just down hill from laurel							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
111	Red alder <i>Alnus rubra</i>	17.6, (17.6)		17.6	Poor to Fair	Poor to Fair	High	Low	Adjacent Property Tree, Protect CRZ Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has significant decay through trunk. The trunk has a bow and leans down hill and to north. Probability of directly hitting a house is low, however tree can create a domino effect if it fails into the trees below it.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
112	Bigleaf maple <i>Acer macrophyllum</i>	15.4, 12.5, 17.6,		39.0	Poor to Fair	Poor to Fair	Medium	Exceptional Medium	Monitor During Construction Install Trunk and Ground Protection
<b>Notes / Defects</b>		Large 14 stem maple with one dead stem. Tree is on part of the slope that has not yet failed. Significant pistil butt formation. Multiple structural and health issues in individual stems in this tree.							
Noted Tree: <input type="checkbox"/>									





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113	Bigleaf maple <i>Acer macrophyllum</i>	18.4, (18.4)		18.4	Poor	Poor	High	None	Remove Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree has a significant trunk wound and canopy weight toward the neighboring property. Neighboring house is within 1.5X falling distance but not directly under tree.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
114	Bigleaf maple <i>Acer macrophyllum</i>	19.2, (19.2)		19.2	Poor to Fair	Poor	High	None	Remove Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree canopy has uneven weight distribution to the property down hill. Both the neighboring house and street are targets. Tree shows evidence of decay in both trunk and canopy growth.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
115	Bigleaf maple <i>Acer macrophyllum</i>	8, 8, 8 (13.86)		13.9	Poor	Dying/Dead	High	Low	Adjacent Property Tree, Protect CRZ Monitor Tree, Risk of Failure
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is off site to the west of the property and therefore not tagged and provided only a Level 1 inspection.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
116	common fig <i>Ficus carica</i>	6, 3, 3 (7.35)		7.3	Fair	Fair	Low	High	Adjacent Property Tree, Protect CRZ Monitor During Construction
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is off site to the west of the property and therefore not tagged and provided only a Level 1 inspection. Tree is located behind a small garden closer to prop line							



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Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
117	Red alder <i>Alnus rubra</i>	9.6, 3 (10.06)		10.1	Fair	Poor	High	Low	Remove Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Tree is small with an uncorrected lean to the road. Tree is located along the west side of a drainage basin.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
118	Bigleaf maple <i>Acer macrophyllum</i>	9.8, (9.8)		9.8	Fair to Good	Fair	Medium	Medium	Monitor Tree, Risk of Failure Monitor During Construction
<b>Notes / Defects</b>		Lower trunk shape indicates slope movement. Tree has a single stem with an even crown.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
119	Bigleaf maple <i>Acer macrophyllum</i>	10.4, 7 (12.54)		12.5	Poor	Poor	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has a double stem and a small uneven crown weighted down hill							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
120	Bigleaf maple <i>Acer macrophyllum</i>	20.5, 15.7, 12, 12, 14		33.9	Poor to Fair	Poor to Fair	Medium	Exceptional  Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Multi stem tree with 5 live stems and 3 dead intermixed. Canopy distribution is uneven toward the south and west. Tree has signs of Kretschmeria fungus on multiple trunks and a significant canopy die back.							
Noted Tree: <input type="checkbox"/>									



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Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
121	Bigleaf maple <i>Acer macrophyllum</i>	11.3, (11.3)		11.3	Fair	Poor	Medium	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has symptoms of decay at the base of the trunk and a double leader. Tree is at the top of a previous slope failure.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
122	Bigleaf maple <i>Acer macrophyllum</i>	24, (24)		24.0	Poor to Fair	Poor	Medium	Low	Monitor Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Multi leader tree has significant basal and trunk decay. Signs of Kretzschmaria fungal infection on trunks. Multiple areas have bark loss and bulging.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
123	Bigleaf maple <i>Acer macrophyllum</i>	8, (8)		8.0	Dying/Dead	Dying/Dead	Medium	Low	Monitor Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Dead cedar leaning into another leaning maple. Tree will fail down hill							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
124	Willow <i>Salix species</i>	12, (12)		12.0	Poor to Fair	Dying/Dead	Medium	Exceptional  None	Monitor Tree, Risk of Failure Restoration Prune
<b>Notes / Defects</b>		Trunk is broken and leaning into ROW. Tree is large for the species but not exceptional due to its condition.							
Noted Tree: <input type="checkbox"/>									





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125	Bigleaf maple <i>Acer macrophyllum</i>	9.3, (9.3)		9.3	Poor to Fair	Poor to Fair	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>									
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
126	Western red cedar <i>Thuja plicata</i>	32, (32)		32.0	Fair	Poor to Fair	Medium	Exceptional  Medium	Monitor Tree, Risk of Failure Install Trunk and Ground Protection
<b>Notes / Defects</b>		A large decay column runs up the tree from previous damage to the bark. A 6" shell wall indicates tree has been in fair health and injury occurred decades ago. Tree has a candelabra split at the top of decay column. This tree will not do well next to a structure. A Level 3 assessment should be conducted prior to retaining.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
127	Bigleaf maple <i>Acer macrophyllum</i>	17, 12, 3, 3, 4 (21.61)		21.6	Poor to Fair	Poor to Fair	Low	Low	Monitor Tree, Risk of Failure ROW Tree, Tree Protection required.
<b>Notes / Defects</b>		Tree has damage and symptoms of decay at double stem connection.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
128	English walnut <i>Juglans regia</i>	16.1, (16.1)		16.1	Fair	Poor	Medium	Low	Monitor Tree, Risk of Failure ROW Tree, Tree Protection required.
<b>Notes / Defects</b>		Tree #181 leans into the canopy. Tree trunk has a lean into neighboring drive way. the tension side of trunk shows significant growth and a large open wound at the base with decay evident far into the the trunk.							
Noted Tree: <input type="checkbox"/>									



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Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
129	common fig <i>Ficus carica</i>	4.2, 6.1, 3, 7 (10.62)		10.6	Fair	Fair	Low	Medium	ROW Tree, Tree Protection required.
<b>Notes / Defects</b>		One of three planted fig trees in the ROW. Small trees were not tagged.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
130	Bigleaf maple <i>Acer macrophyllum</i>	7.4, (7.4)		7.4	Fair to Good	Fair	Low	Medium	Monitor During Construction
<b>Notes / Defects</b>		Tree is to the south, in the canopy of cedar (#126). Tree has a double leader and shade adapted canopy. Do not retain if cedar is removed.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
131	Western red cedar <i>Thuja plicata</i>	7.1, (7.1)		7.1	Good	Fair	Low	Medium	Monitor During Construction Install Trunk and Ground Protection
<b>Notes / Defects</b>		Small conifer with potential to grow into good tree. Retain if possible.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
132	Bigleaf maple <i>Acer macrophyllum</i>	23.9, 17.1, 12.3		31.9	Poor to Fair	Poor to Fair	Medium	Exceptional  Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has three large stems on the uphill side of a grove. Tree leans to east and one stem has a large double leader.							
Noted Tree: <input type="checkbox"/>									



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133	Bigleaf maple <i>Acer macrophyllum</i>	19, 16.1, 16 (29.6)		29.6	Poor to Fair	Poor to Fair	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has three stems all with large branch die back and one dead stem. Canopy has uneven distribution to the south. Tree is close to exceptional and may be considered so due to rounding.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
134	Bigleaf maple <i>Acer macrophyllum</i>	17, 6 (18.03)		18.0	Poor to Fair	Poor	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree is located on the down hill side of #132 and #133. Lower trunk formation indicates slope movement. Tree has uneven crown distribution to the west. Irregular bark seam in the tension wood may indicate internal cracking. Small second trunk attached at base. Tree may be connected to #132							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
135	Bigleaf maple <i>Acer macrophyllum</i>	16.2, (16.2)		16.2	Poor to Fair	Poor	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has an unusual trunk formation with a twisting double leader and a seam on the trunk. Tree will not be a good candidate to retain near a structure.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
136	Bigleaf maple <i>Acer macrophyllum</i>	12.7, 9, 9.8, 14.3,		31.8	Poor to Fair	Poor	Medium	Exceptional  Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree is a multi stem with ten connected trunks. All canopies have an uneven distribution to the west (downhill).							
Noted Tree: <input type="checkbox"/>									





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137	Bigleaf maple <i>Acer macrophyllum</i>	20, 19.1, 6 (28.3)		28.3	Poor to Fair	Poor	Medium	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree is close to exceptional. Canopies are small and in poor health. Neighboring house is within 2X the height of the trunks.							
Noted Tree: <input type="checkbox"/>									
138	Red alder <i>Alnus rubra</i>	6.8, (6.8)		6.8	Fair	Poor to Fair	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree is on the wetland border. Tree has small canopy with a tall and thin trunk.							
Noted Tree: <input type="checkbox"/>									
139	Red alder <i>Alnus rubra</i>	13.2, (13.2)		13.2	Poor to Fair	Dying/Dead	High	None	Remove Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has an uncorrected lean to the road with evidence of basal/soil failure. Four trees near by <6 inches diameter are also in the wetland drainage.							
Noted Tree: <input type="checkbox"/>									
140	Red alder <i>Alnus rubra</i>	8, 6.2 (10.12)		10.1	Fair	Poor	Low	Low	ROW Tree, Tree Protection required. Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Right of way tree with a double stem. Trunks have a slight lean and uneven canopy distribution to the neighboring driveways.							
Noted Tree: <input type="checkbox"/>									



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Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
141	Paper birch <i>Betula papyrifera</i>	12, (12)		12.0	Fair	Fair	Low	Medium	Adjacent Property Tree, Protect CRZ Monitor During Construction
<b>Notes / Defects</b>		Tree is off site to the west of the property and therefore not tagged and provided only a Level 1 inspection.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
142	Paper birch <i>Betula papyrifera</i>	12, (12)		12.0	Fair	Fair	Low	Medium	Adjacent Property Tree, Protect CRZ Monitor During Construction
<b>Notes / Defects</b>		Tree is off site to the west of the property and therefore not tagged and provided only a Level 1 inspection.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
143	Red alder <i>Alnus rubra</i>	7.5, (7.5)		7.5	Poor to Fair	Poor to Fair	Medium	Low	Monitor Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Tree has a small high canopy with an uncorrected trunk lean to the south west toward tree #141 and #142. Considerable branch stacking, lawn debris and leaf piling at base of the trees should be removed.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
144	Red alder <i>Alnus rubra</i>	8.4, 5.2 (9.88)		9.9	Fair	Poor	Medium	Low	Monitor Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Tree has a corrected lean toward the neighboring house							
Noted Tree: <input type="checkbox"/>									



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Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
145	Red alder <i>Alnus rubra</i>	6.3, (6.3)		6.3	Poor	Poor	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>									
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
146	Red alder <i>Alnus rubra</i>	15.7, (15.7)		15.7	Poor	Poor	Medium	Low	Monitor Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Tree has an uncorrected trunk lean toward neighboring houses							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
147	Red alder <i>Alnus rubra</i>	7, (7)		7.0	Poor to Fair	Poor to Fair	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		An adjacent snag failure leans into the canopy.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
148	Red alder <i>Alnus rubra</i>	7.8, (7.8)		7.8	Poor to Fair	Dying/Dead	Medium	None	Remove Tree, Risk of Failure
<b>Notes / Defects</b>		Top of tree is dead and hanging in tree #147. The failure is small but could hit neighboring house.							
Noted Tree: <input type="checkbox"/>									





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149	Red alder <i>Alnus rubra</i>	7.8, (7.8)		7.8	Poor to Fair	Poor	High	None	Remove Tree, Risk of Failure
<b>Notes / Defects</b>		Multiple alders lean or have failed toward the neighboring house. Six trees less than 6 inches diameter surround this tree.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
150	Red alder <i>Alnus rubra</i>	6.3, (6.3)		6.3	Poor to Fair	Poor	Medium	None	Remove Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Tree has a crook in the top and an uncorrected lean toward the neighboring house							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
151	Red alder <i>Alnus rubra</i>	8.2, (8.2)		8.2	Poor to Fair	Fair	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Ivy growing around tree, This trunk is straight but the tree is tall and thin.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
152	Red alder <i>Alnus rubra</i>	8, (8)		8.0	Fair	Poor to Fair	Medium	Low	Remove Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Tree has an uncorrected lean and uneven canopy weight toward neighboring house.							
Noted Tree: <input type="checkbox"/>									



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153	Red alder <i>Alnus rubra</i>	8.8, (8.8)		8.8	Fair	Poor to Fair	Low	Low	Remove Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Tree has an uncorrected lean and uneven canopy weight toward neighboring house.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
154	Red alder <i>Alnus rubra</i>	8.4, (8.4)		8.4	Poor to Fair	Poor	Medium	None	Remove Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has failed and leans into tree #156							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
155	Red alder <i>Alnus rubra</i>	8.8, (8.8)		8.8	Fair to Good	Dying/Dead	Low	None	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has a corrected lean to the south.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
156	Red alder <i>Alnus rubra</i>	8.6, (8.6)		8.6	Poor to Fair	Poor	Medium	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree #154 is hanging in the canopy. Tree has a high probability of failing into adjacent property but low probability of hitting house. Remove tree when 154 and 155 are removed.							
Noted Tree: <input type="checkbox"/>									



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Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
157	Bigleaf maple <i>Acer macrophyllum</i>	15.9, (15.9)		15.9	Poor to Fair	Poor to Fair	High	Low	Remove Tree, Risk of Failure
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Trunk basal form indicates slope movement and tree has a seam in the tension wood. Tree has an uncorrected lean to adjacent house. House is 2X the distance to the tree.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
158	Bigleaf maple <i>Acer macrophyllum</i>	13.3, 14.5, 20 (28.06)		28.1	Poor to Fair	Poor to Fair	Medium	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is almost exceptional with multiple live stems and some dead. Tree is located just above the drainage. Canopy weight is uneven.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
159	Bigleaf maple <i>Acer macrophyllum</i>	16, 18, 12, 14 (30.33)		30.3	Poor to Fair	Poor	Medium	Exceptional  Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Multi stem tree with four live trunks and two dead trunks. Tree is located on an upper edge of a previous slope failure.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
160	Western red cedar <i>Thuja plicata</i>	36, (36)		36.0	Good	Fair	Medium	Exceptional  Medium	Monitor During Construction Level 3 Assessment - Resistograph Trunk Inspection
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Trunk has a large bulge indicating extensive decay. Lower trunk shape indicates slope movement. Uphill side of tree has a decay column with evidence of hollow trunk 20 ft up. Level 3 risk assessment for trunk structure is recommended prior to retaining.							



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161	Red alder <i>Alnus rubra</i>	24, (24)		24.0	Poor	Poor	Medium	Low	Monitor Tree, Risk of Failure Create Wildlife Tree
<b>Notes / Defects</b>		Tree is a living snag. Bacterial ooze is evident in sapwood. Tree has lean down hill but is far from house. Very little canopy is left in this tree.							
Noted Tree: <input type="checkbox"/>									
162	Red alder <i>Alnus rubra</i>	24, (24)		24.0	Poor to Fair	Poor to Fair	Medium	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree is in decline. sap wood ooze was visible on trunk. Trunk holds an uncorrected lean to the south.							
Noted Tree: <input type="checkbox"/>									
163	Red alder <i>Alnus rubra</i>	8.7, (8.7)		8.7	Fair	Poor to Fair	Low	Low	Adjacent Property Tree, Protect CRZ Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree is off site to the south of the property and therefore not tagged and provided only a Level 1 inspection. Tree canopy has a split top.							
Noted Tree: <input type="checkbox"/>									
164	Bigleaf maple <i>Acer macrophyllum</i>	16, (16)		16.0	Poor	Poor	Low	Low	Monitor Tree, Risk of Failure Clearance Prune
<b>Notes / Defects</b>		Power and below ground utilities are near the trunk. Blackberry makes tree difficult to access, only a Level 1 assessment was provided for this tree.							
Noted Tree: <input type="checkbox"/>									



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165	Bigleaf maple <i>Acer macrophyllum</i>	12, 10, 6, 6 (17.78)		17.8	Poor to Fair	Poor	Low	Low	Monitor Tree, Risk of Failure Clearance Prune
<b>Notes / Defects</b>		Blackberry and steep slope makes tree inaccessible. Tree will be a problem with power lines in the future.							
Noted Tree: <input type="checkbox"/>									
166	Bigleaf maple <i>Acer macrophyllum</i>	26, (26)		26.0	Fair	Fair	Low	Medium	Adjacent Property Tree, Protect CRZ
<b>Notes / Defects</b>		Tree is off site to the south of the property and therefore not tagged and provided only a Level 1 inspection.							
Noted Tree: <input type="checkbox"/>									
167	Western red cedar <i>Thuja plicata</i>	36, (36)		36.0	Fair	Fair	Medium	Exceptional High	Adjacent Property Tree, Protect CRZ Monitor During Construction
<b>Notes / Defects</b>		Tree is off site to the south of the property and therefore not tagged and provided only a Level 1 inspection. Tree has a unique branch structure.							
Noted Tree: <input type="checkbox"/>									
168	Red alder <i>Alnus rubra</i>	10, (10)		10.0	Poor to Fair	Poor to Fair	Low	Low	Adjacent Property Tree, Protect CRZ Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Tree is off site to the south of the property and therefore not tagged and provided only a Level 1 inspection.							
Noted Tree: <input type="checkbox"/>									





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169	Red alder <i>Alnus rubra</i>	12, (12)		12.0	Poor to Fair	Poor to Fair	Medium	Low	Adjacent Property Tree, Protect CRZ Monitor Tree, Risk of Failure
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is off site to the south of the property and therefore not tagged and provided only a Level 1 inspection. This is the closest of two alder trees similar in size and condition.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
170	Bigleaf maple <i>Acer macrophyllum</i>	16, (16)		16.0	Fair	Poor	Low	Low	Adjacent Property Tree, Protect CRZ Monitor Tree, Risk of Failure
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is off site to the south east of the property and therefore not tagged and provided only a Level 1 inspection. Tree has a split trunk and double leader.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
171	Western red cedar <i>Thuja plicata</i>	32, (32)		32.0	Fair	Fair	Low	Exceptional  High	Adjacent Property Tree, Protect CRZ Monitor During Construction
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is off site to the south east of the property and therefore not tagged and provided only a Level 1 inspection. This tree is the front of a large mature grove. Root system protection is very important for this tree.							
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
172	Western red cedar <i>Thuja plicata</i>	30, (30)		30.0	Fair	Fair	Low	Exceptional  High	Adjacent Property Tree, Protect CRZ Monitor During Construction
<b>Notes / Defects</b> Noted Tree: <input type="checkbox"/>		Tree is off site to the south of the property and therefore not tagged and provided only a Level 1 inspection. This tree protects a mature grove of trees off site. Root protection here is important.							



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173	Autumn brilliance <i>Amelanchier x grandiflora</i> 'Autumn	6, 6, 5, 5, 4 (11.75)		11.7	Poor to Fair	Poor	Medium	Low	ROW Tree, Tree Protection required. Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		SDOT ROW Tree. Tree is small and not tagged. Tree is over mature, overgrown, and has significant leans. High probability of failing with few targets.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
174	Western red cedar <i>Thuja plicata</i>	12, (12)		12.0	Fair to Good	Fair	Low	Medium	ROW Tree, Tree Protection required. Monitor During Construction
<b>Notes / Defects</b>		Great specimen in a good location on site. Tree conflicts will arise in the future with the power pole if utilities are left in place.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
175	Apple <i>Malus domestica</i>	6, 6, 3 (9)		9.0	Good	Fair to Good	Low	Medium	ROW Tree, Tree Protection required. Monitor During Construction
<b>Notes / Defects</b>		Trees were planted as a side yard for the neighborhood.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
176	Apple <i>Malus domestica</i>	5, (5)		5.0	Poor	Poor	Low	Low	ROW Tree, Tree Protection required. Monitor During Construction
<b>Notes / Defects</b>									
Noted Tree: <input type="checkbox"/>									



Urban Forestry Services, Inc.  
15119 McLean Road  
Mount Vernon, WA 98273  
(360) 428-5810

## Kemp Hiatt Two Lot Seattle Site

### Tree Assessment Matrix

Inspector: Heckman  
ISA Certified Arborist  
ISA Tree Risk Assessment Qualified

Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
177	Apple <i>Malus domestica</i>	8, 5, 4, 4 (11)		11.0	Fair to Good	Fair	Low	Medium	ROW Tree, Tree Protection required.
<b>Notes / Defects</b>		Tree was pruned heavily in past and wood braces are nailed through the center of the tree.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
178	Red alder <i>Alnus rubra</i>	6, (6)		6.0	Poor	Poor to Fair	Low	Low	Monitor Tree, Risk of Failure
<b>Notes / Defects</b>		Significant tree that was not mapped. Bacterial black sap weeping from trunk wounds. Tree is located just down hill from # 126							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
179	common fig <i>Ficus carica</i>	10, (10)		10.0	Fair to Good	Fair	Low	Medium	ROW Tree, Tree Protection required. Monitor During Construction
<b>Notes / Defects</b>		One of three fig trees planted in the ROW. Tree has multiple leaders. Tree is on the east side of group closest to hedge.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
180	common fig <i>Ficus carica</i>	10, (10)		10.0	Fair	Fair	Low	Medium	ROW Tree, Tree Protection required. Monitor During Construction
<b>Notes / Defects</b>		One of three fig trees. Tree is the north center of the group.							
Noted Tree: <input type="checkbox"/>									



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## Kemp Hiatt Two Lot Seattle Site

### Tree Assessment Matrix

Inspector: Heckman  
ISA Certified Arborist  
ISA Tree Risk Assessment Qualified

Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
181	Bitter cherry <i>Prunus emarginata</i>	8, (8)		8.0	Dying/Dead	Dying/Dead	High	None	ROW Tree, Tree Protection required. Remove Tree, Risk of Failure
<b>Notes / Defects</b>		Tree has failed and hung up in the walnut tree.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
182	Southern magnolia <i>Magnolia grandiflora</i>	10, (10)		10.0	Fair to Good	Fair to Good	Low	High	Monitor During Construction Install Tree Protection Fencing
<b>Notes / Defects</b>		Both Tree #182 and #183 were not surveyed but look to be on the property. These are managed and cared for by the neighbor.							
Noted Tree: <input type="checkbox"/>									
Tree	Species	DBH (in)	Dripline (ft)	CRZ (ft)	Vigor	Structure	Risk	Prot.Cat./Pres.Val.	Recommendations
183	Southern magnolia <i>Magnolia grandiflora</i>	10, (10)		10.0	Fair to Good	Fair to Good	Low	High	Install Tree Protection Fencing Monitor During Construction
<b>Notes / Defects</b>		Both Tree #182 and #183 look to be on the Hiatt property. These are managed and cared for by the neighbor.							
Noted Tree: <input type="checkbox"/>									

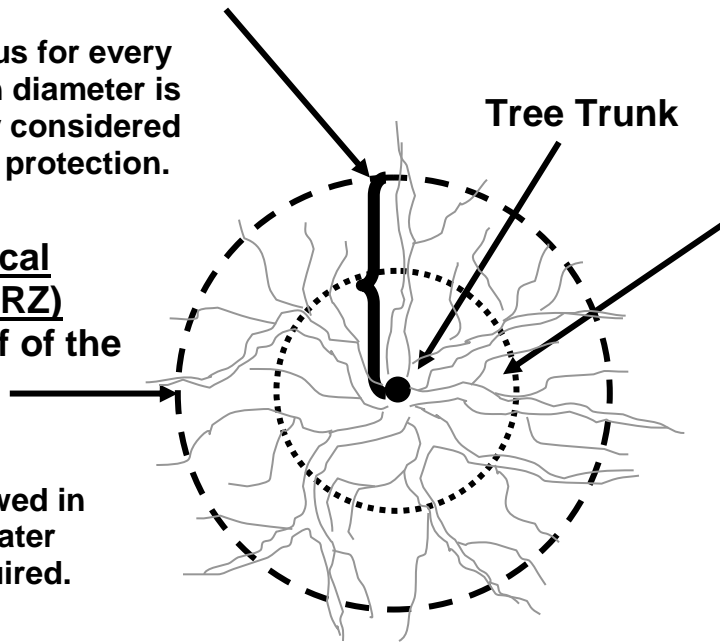
**Critical Root Zone (CRZ) =**

12" Radius for every Tree inch diameter is generally considered optimum protection.

**Perimeter Critical Root Zone (PCRZ)**

= the outer half of the CRZ

The greater the disturbance allowed in this area, the greater Post Care is required.



**Interior Critical Root Zone (ICRZ)**

= the inner half of the CRZ

Protecting only this area would cause significant impact to the tree, potentially life threatening, and would require maximum Post Care Treatment to retain the tree. See Post Care Treatment below.

The Critical Root Zone (CRZ) of a tree is established on the basis of the trunk diameter. The CRZ is a circular area which has a radius of 12 inches for every inch diameter of trunk measured at 4.5 feet above grade. Root systems will vary both in depth and spread depending on size of tree, soils, water table, species and other factors. However, this CRZ description is generally accepted in the tree industry. Protecting this entire root zone area should result in no adverse impact to the tree, except for potentially increased exposure.

The above CRZ drawing has been further differentiated into the 'Perimeter' (PCRZ) and 'Interior' (ICRZ) to help define potential impact and required Post Care.

Generally, the full PCRZ is considered the optimum amount of root protection for a tree. As one encroaches into the "Perimeter CRZ, but not into the "Interior CRZ" the greater Post Care the tree would require to remain alive and stable. The 'Interior CRZ is half the radius of the full PCRZ. Disturbance into the ICRZ could destabilize or cause the tree to decline.

The 'Interior' CRZ should never be disturbed if the tree is to have any chance of survival. This 'Interior' CRZ would approximately equal the size of a rootball needed to transplant this tree which in turn would require extensive Post Care and possibly guying.

This Post Care Treatment would include but may not be limited to; regular irrigation, misting, root treatment with special root hormones or growth stimulants, mulching, guying and monitoring for several years. Lack of this treatment would be fatal.



**Urban Forestry Services, Inc.**

15119 McLean Rd.  
Mount Vernon, WA 98273

**Title: Critical Root Zone (CRZ) Explanation**

**Source: Urban Forestry Services, Inc**

**Jim Barborinas, ISA Certified Arborist PN-0135**

**ASCA Registered Consulting Arborist #356,**

**Tree Risk Assessor Qualified**

**Date: 2018**

**Not to Scale**

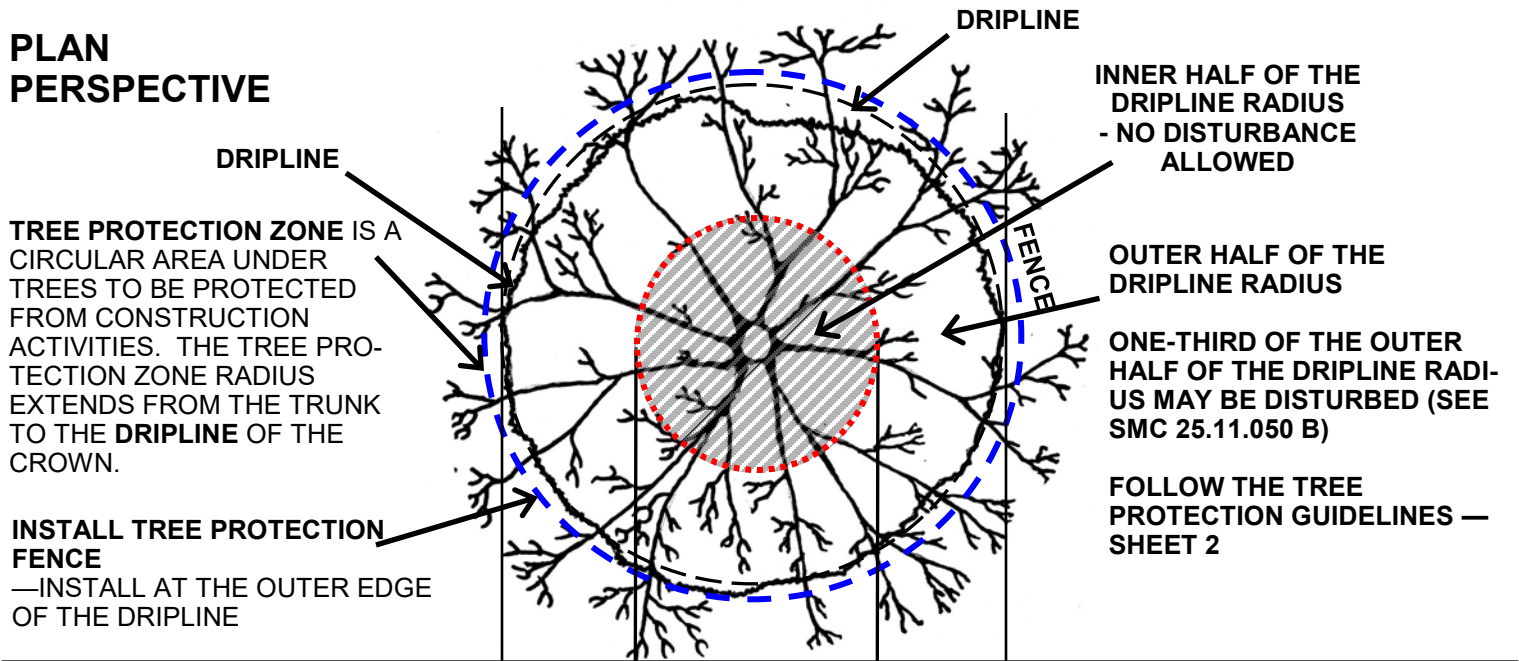


# CITY OF SEATTLE - EXCEPTIONAL TREE, PROTECTION

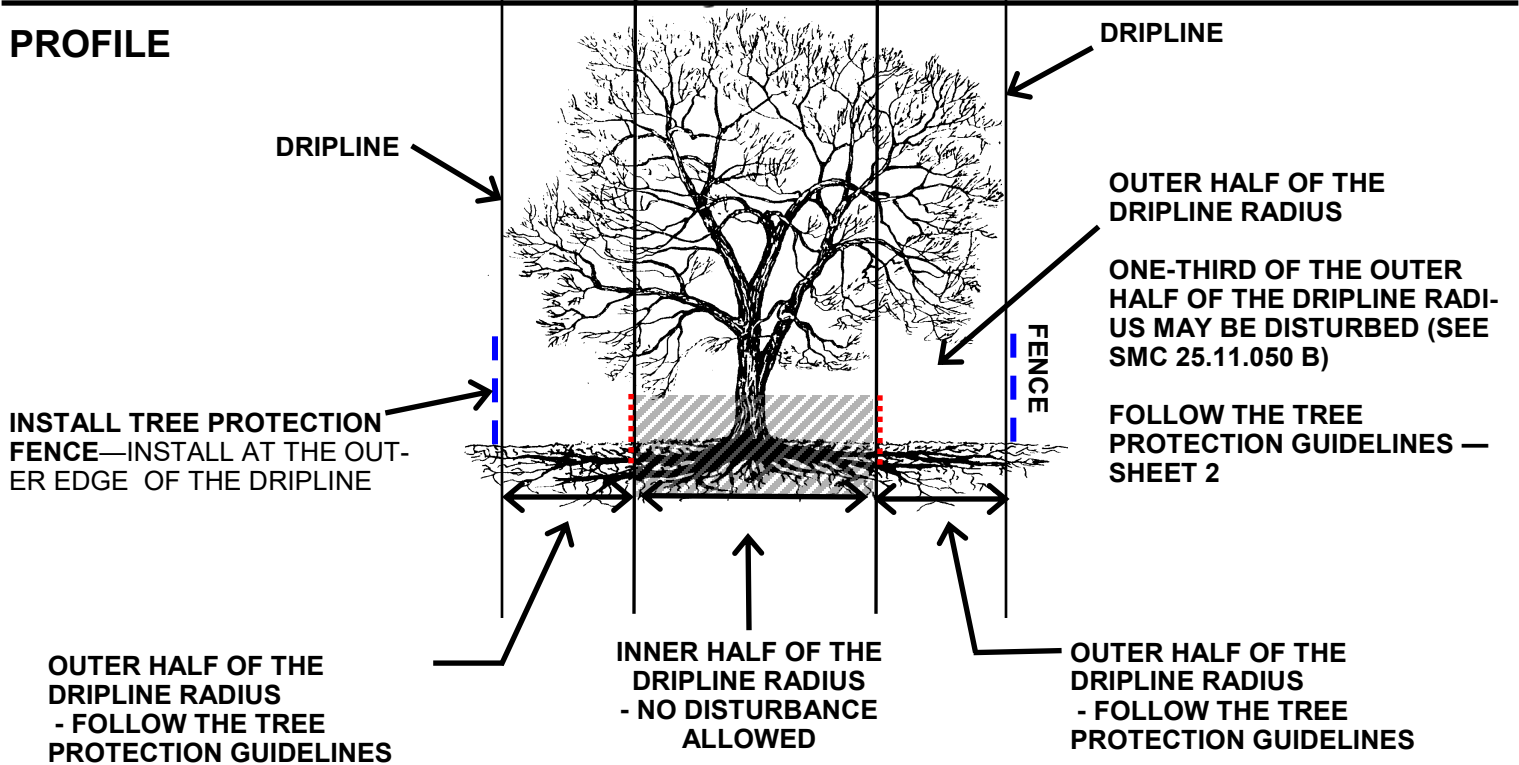
## DETAIL (SMC 25.11.050)

THIS DETAIL SHOWS THE TREE PROTECTION ZONE FOR AN EXCEPTIONAL TREE, OR TREE TO BE RETAINED OVER 24 INCHES DIAMETER MEASURED AT 4.5 FEET HEIGHT. SEE SHEET 2 FOR TREE PROTECTION GUIDELINES.

### PLAN PERSPECTIVE



### PROFILE

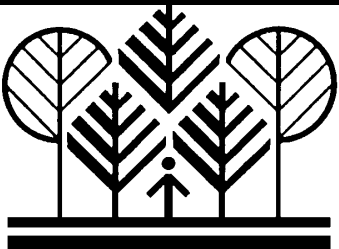


	SHEET TITLE CITY OF SEATTLE - EXCEPTIONAL TREE, PROTECTION DETAIL		
	SHEET: Sheet 1 of 2	NOT TO SCALE	PREPARED BY URBAN FORESTRY SERVICES, INC. 15119 McLEAN ROAD MOUNT VERNON, WA 98273

# TREE PROTECTION GUIDELINES

**Tree Protection Zone** as specified by the City of Seattle DPD code, is a circular area under trees to be protected from construction activities. The radius of the Tree Protection Zone extends from the trunk to the outer edge of the dripline. Follow the guidelines list below:

1. Install biodegradable coir mat netting on the existing grade over the entire Tree Protection Zone of all exceptional trees and groves before woodchip placement, to protect the condition and confirm the location of the existing grade. The netting is a valuable benchmark that has proven useful during site disturbance and upon removal of the organic materials within the Tree Protection Zone. See Sheet 1.
2. Install an irrigation system over the coir netting. Use a large coil of soaker hose starting at least 36 inches from the trunk and covering the entire Tree Protection Zone of each tree. The hoses in the coil should not be more than 18 inches apart. Water once per week, and check the soils for at least 12 inches infiltration to confirm the application of any watering.
3. Install 6 inches of arborist woodchips, spread to an even depth over the Tree Protection Zone of each exceptional tree, and the entire Tree Protection Zone area under the tree groves, keeping arborist woodchips 6" away from the trunks of all trees. Install this mulch material prior to any demolition activity and maintain its depth throughout construction.
4. Install metal plates on top of the 6 inches of arborist woodchips in all areas where demolition and construction activity is to occur. This is to protect the Tree Protection Zone from the significant impacts from vehicular access, equipment, temporary work or material storage which will need to occur in the Tree Protection Zone in order to construct new homes.
5. Construct plywood trunk protection around retained tree trunks. These shall consist of 4-4'x8' sheets of plywood, on end, fastened at the corners forming a box around the tree.
6. Where the likelihood of heavy equipment damaging lateral limbs of retained trees is high, install branch protection. Branch protection shall consist of a closed foam padding material, wrapped around the exposed lateral branches above all construction activity. Some pruning may be allowed if approved by the Owners Arborist, or limbs may be temporarily tied back out of harm's way. Complete this work prior to demolition.
7. Complete clearance pruning prior to demolition and the construction of new homes. Pruning must be coordinated with the Owners Arborist in conjunction with the construction equipment used i.e. piling rig, and the upper story design elements to allow construction to proceed and be maintained. Clearance pruning shall be completed to ANSI A300 Standards for pruning, and by an ISA Certified Arborist and/or ISA Certified Tree Worker.
8. Do not trench through the Tree Protection Zone. Review all trenching requirements with the Owner's Arborist before trenching for approval. Use one of the following methods for utility installation to avoid impacting significant roots of exceptional trees or groves when a utility must be installed through the Tree Protection Zone:
  - A. Trenchless excavation
  - B. Hydro excavation
  - C. Pneumatic excavation
9. Route sewer and stormwater lines outside the dripline of all Exceptional trees.
10. Retain the existing grade within the dripline of all Exceptional trees.

	SHEET TITLE		TREE PROTECTION GUIDELINES		FOR
	Sheet 2 of 2	NOT TO SCALE	3-19-2015	URBAN FORESTRY SERVICES, INC. 15119 McLEAN ROAD MOUNT VERNON, WA 98273	URBAN FORESTRY SERVICES, INC.
	SHEET #	SCALE	DATE	PREPARED BY	DRAWN BY

## **ASSUMPTIONS AND LIMITING CONDITIONS**

**Urban Forestry Services, Inc.  
15119 McLean Rd.  
Mount Vernon, Washington 98273**

### **1. Limitations of this Assessment**

This Assessment is based on the circumstances and observations as they existed at the time of the site inspection of the Client's Property and the trees inspected by Urban Forestry Services, Inc. and upon information provided by the Client to Urban Forestry Services, Inc. The opinions in this Assessment are given based on observations made and using generally accepted professional judgment, however, because trees and plants are living organisms and subject to change, damage, and disease, the results, observations, recommendations, and analysis took place and no guarantee, warranty, representation, or opinion is offered or made by Urban Forestry Services, Inc. as to the length of the validity of the results, observations, recommendations, and analysis contained within this Assessment. As a result, the Client shall not rely upon this Assessment, save and except for representing the circumstances and observations, analysis, and recommendations that were made as at the date of such inspections. It is recommended that the trees discussed in this Assessment should be re-assessed periodically.

Urban Forestry Services, Inc. shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in our fee schedule and contract of engagement.

Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.

### **2. Reaction of Assessment**

The Assessment carried out was restricted to the Property. No assessment of any other trees or plants has been undertaken by Urban Forestry Services, Inc. Urban Forestry Services, Inc. is not legally liable for any other trees or plants on the Property except those expressly discussed herein. The conclusions of this Assessment do not apply to any areas, trees, plants, or any other property not covered or referenced in this Assessment.

### **3. Professional Responsibility**

In carrying out this Assessment, Urban Forestry Services, Inc. and any Assessor appointed for and on behalf of Urban Forestry Services, Inc. to perform and carry out the Assessment has exercised a reasonable standard of care, skill, and diligence as would be customarily and normally provided in carrying out this Assessment. The Assessment has been made using accepted arboricultural techniques. These include a visual examination of each tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of insect attack, discolored foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the current or planned proximity of property and people. Except where specifically noted in the Assessment, none of the trees examined on the property were dissected, cored, probed, or climbed and detailed root crown examinations involving excavation were not undertaken.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy, no guarantees are offered, or implied, that these trees, or all parts of them will remain standing. It is professionally impossible to predict with absolute certainty the behavior of any single tree or group of trees, or all their component parts, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential to fall, lean, or otherwise pose a danger to property and persons in the event of adverse weather conditions, and this risk can only be eliminated if the tree is removed.

Without limiting the foregoing, no liability is assumed by Urban Forestry Services, Inc. or its directors, officers, employers, contractors, agents, or Assessors for:

- any legal description provided with respect to the Property;
- issues of title and or ownership respect to the Property;
- the accuracy of the Property line locations or boundaries with respect to the Property; and
- the accuracy of any other information provided to Urban Forestry Services, Inc. by the Client or third parties;
- any consequential loss, injury, or damages suffered by the Client or any third parties, including but not limited to replacement costs, loss of use, earnings, and business interruption; and
- the unauthorized distribution of the Assessment.

The total monetary amount of all claims or causes of action the Client may have as against Urban Forestry Services, Inc. including but not limited to claims for negligence, negligent misrepresentation, and breach of contract, shall be strictly limited to solely to the total amount of fees paid by the Client to Urban Forestry Services, Inc. pursuant to the Contract for Services as dated for which this Assessment was carried out. Further, under no circumstance may any claims be initiated or commenced by the Client against Urban Forestry Services, Inc. or any of its directors, officers, employees, contractors, agents, or Assessors, in contract or in tort, more than 12 months after the date of this Assessment.

#### **4. Third Party Liability**

This Assessment was prepared by Urban Forestry Services, Inc. exclusively for the Client. The contents reflect Urban Forestry Services, Inc. best assessment of the trees and plants on the Property in light of the information available to it at the time of preparation of this Assessment. Any use which a third party makes of this Assessment, or any reliance on or decisions made based upon this Assessment, are made at the sole risk of any such third parties. Urban Forestry Services, Inc. accepts no responsibility for any damages or loss suffered by any third party or by the Client as a result of decisions made or actions based upon the use of reliance of this Assessment by any such party.

#### **5. General**

Any plans and/or illustrations in this Assessment are included only to help the Client visualize the issues in this Assessment and shall not be relied upon for any other purpose.

This report and any values expressed herein represent the opinion of Urban Forestry Services, Inc. Our fee is in no way contingent upon any specified value, a result or occurrence of a subsequent event, nor upon any finding reported.

The Assessment report shall be considered as a whole, no sections are severable, and the Assessment shall be considered incomplete if any pages are missing. The right is reserved to adjust tree valuations, if additional relevant information is made available. This Assessment is for the exclusive use of the Client.